

*JOURNAL OF*  
**GLASS**  
*STUDIES*



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THE CORNING MUSEUM OF GLASS

JOURNAL OF GLASS STUDIES



*Smallsword with scabbard, France, about 1785. Glass-paste "jewels"; cobalt and aventurine glass plaques; steel; gold; silver. Overall H. 99.5 cm, H. 11.5 cm, D. 6.5 cm (2020.3.1, purchased in part with funds from Dwight and Lorri Lanmon).*

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THE JOURNAL OF GLASS STUDIES was conceived to meet the need for the recording of those discoveries, interpretations, acquisitions, and publications that affect the understanding of the history of glassmaking and of glass as an artistic medium up to the mid-20th century. Articles of a scholarly nature include archaeological, early scientific-technical, and art-historical accounts.

Although the content of each issue is the responsibility of the editors, it is largely determined by the number, nature, and quality of contributions and illustrations received. Unsolicited manuscripts are always welcome. Additional information for prospective authors may be found in the Information for Contributors on pages 409–412.

## *The Rakow Grant*

In 1986, The Corning Museum of Glass inaugurated the Rakow Grant for Glass Research to promote glass scholarship. This program, which provides \$25,000 per year, is made possible through the generosity of the late Juliette K. and Leonard S. Rakow, who were Fellows, friends, and benefactors of the Museum.

The Rakow Grant fosters scholarly research in the history of glass and glassmaking. Individuals and institutions may apply for the grant, which may be used to cover travel, living expenses, or other expenditures necessary to conduct the research or to publish it. Applications, which will be reviewed by a Museum staff committee, must be received before February 1 of the year for which funding is requested. Notification of the committee's decision will be sent by April 1.

The Rakow Grant supersedes the Leonard S. and Juliette K. Rakow Award for Excellence in the History of Glass, which recognized significant accomplishments in glass scholarship.

Additional information on the Rakow Grant will be found on the Museum's Web site at [www.cmog.org/research/opportunities-for-scholars](http://www.cmog.org/research/opportunities-for-scholars).

The Rakow Commission is awarded to one artist each year to support the creation of a boundary-breaking work for the Museum's collection. More information on this commission appears in the Museum's publication *New Glass Review*.

## *Whitehouse Research Residencies*

The Corning Museum of Glass has established research residencies for scholars and artists in memory of Dr. David B. Whitehouse, its former executive director.

The David Whitehouse Research Residency for Scholars is open to scholars who want to use the Museum's resources, especially the extensive holdings of the Rakow Research Library, to support their research on any period of glass history. The residency will allow scholars to delve into various glass-related topics, to increase their knowledge, and to advance their work on special projects.

The David Whitehouse Research Residency for Artists is open to artists who want to utilize the Museum's resources, including the permanent collections and the holdings of the Rakow Research Library, to inform their practice.

Information about the scholars' residency is available at [www.cmog.org/research/opportunities-for-scholars/whitehouse-scholar-residency](http://www.cmog.org/research/opportunities-for-scholars/whitehouse-scholar-residency). Information about the artists' residency can be found at [www.cmog.org/glassmaking/studio/residencies/david-whitehouse-artist-residency-research](http://www.cmog.org/glassmaking/studio/residencies/david-whitehouse-artist-residency-research).

Questions concerning the residency should be sent to [residency@cmog.org](mailto:residency@cmog.org).

Funding for the David Whitehouse residencies is provided, in part, by a generous contribution from Daniel and Welmoet B. van Kammen in memory of their daughter, Marleen.

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Bob was instrumental in the production of the film shown at the entrance to the second gallery, which focused on Roman glassmaking and the development of glassblowing. He wrote the script and led a team of seven people, including cinematographer Elliott Erwit, to Afghanistan in 1977 to document the work of a family of glassmakers in Herat, comparing their processes with those described on a 3,000-year-old Mesopotamian cuneiform tablet. The award-winning film, now available online, is very moving in its depiction of a close-knit family in what soon became a war-ravaged country.

I shall always remember Bob's office in the Museum. It was very dark. A large desk, covered with books and memorabilia of his world travels, faced two comfortable chairs. Evidence of the care with which he approached the written word, an *Unabridged Oxford English Dictionary*, complete with magnifying glass, was at his right hand. Behind him was a microscope and an array of boxes, each containing glass samples. In a connecting storeroom were even more boxes, each carefully labeled with the source and contents. (There was yet another storeroom across the hall containing hundreds more sample boxes waiting to be studied.)

On a 1987 visit to Bob's office, when the monumental exhibition *Glass of the Caesars* was being installed in the galleries above, I joined Bob, David Whitehouse (then chief curator and curator of the exhibition), Hansgerd Hellenkemper of the Römisch-Germanisches Museum in Cologne, and Kenneth Painter of the British Museum in London to examine the famous Roman-period dichroic-glass Lycurgus Cup, which was lent for the exhibition by the British Museum. I was privileged to handle the cup while Bob explained the processes used to make it. It was a thrilling moment for all of us, but especially for me!

I departed Corning in June 1992 to return to Winterthur Museum as its director. I maintained contact with Bob through the years, but never at the level of interaction that I had enjoyed for the previous nineteen. I celebrated his work every time I received a copy of his latest publication, including the monumental three-volume *Chemical Analyses of Early Glasses*. The first two volumes with chemical analyses were published in 1999, and the concluding volume, with narrative reports and essays interpreting the data published in the first

two volumes, was published in 2012. But that was just the culmination of a life of productive research that resulted in over 190 publications.

Like so many colleagues across the globe, I grieve Bob's death, while also counting myself fortunate to have known him as a friend and colleague.

Dwight P. Lanmon

DR. ROBERT BRILL  
AND THE ARCHAEOOMETRY OF GLASS

Dr Brill's contributions on the chemistry of ancient glass were outstanding and continue to underpin the whole field. He had the ability to tie a wide range of evidence—mainly from chemistry, but drawing on modern glass technology, ethnography, archaeology, and experimentation—into a single narrative which was both robust and convincing. In this way he provided a model for how glass compositions should be interpreted, and this approach continues to be followed today.

Dr. Brill was an innovator and his pioneering achievements were many. He was the first to identify the potential of the isotopes lead and oxygen as tools to provenance ancient artefacts, laying the foundation for current methods.<sup>1</sup> Not only did he recognize the importance of isotopes in grouping artifacts, but he published the first isotopic analyses of metal ores conducted specifically for archaeological purposes, from Laurion in Greece.<sup>2</sup> His interest in analytical methods led to the first publication using the electron microprobe to analyze ancient glass in the early 1960s, a method which finally became the standard approach two decades later and is only now being supplanted by laser-based methods.<sup>3</sup> To promote high-quality

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1. For full bibliographical entries for all works cited here by author(s), title, and publication year, see below, "Selected Publications of Dr. Robert H. Brill," pp. 388–395. Brill and Wampler, "Isotope Studies of Ancient Lead," 1967; Brill, "Lead and Oxygen Isotopes in Ancient Objects," 1970.

2. Barnes, Shields, Murphy, and Brill, "Isotopic Analysis of Laurion Lead Ores," 1974.

3. Brill and Moll, "The Electron-Beam Probe Microanalysis of Ancient Glass," 1961; Brill and Moll, "The Electron Beam Probe Microanalysis of Ancient Glass," 1963.

analysis, he developed a set of reference glasses which could be used by laboratories across the world to calibrate and compare their measurements, and he then used them to organize the first inter-laboratory comparison of the analysis of ancient glass.<sup>4</sup> Today researchers continue to depend upon the diminishing stock of the Corning Museum Ancient Glass Reference Standards to ensure the accuracy and inter-comparability of their data. The foresight and generosity shown by this initiative arguably make it the single most important contribution by any one individual working in the field of early glass and one of the most important contributions to the study of early materials in general.

Virtually every article that Dr. Brill published contained new insights and it is possible to mention only a few here. In his chapter in *Glass and Glassmaking in Ancient Mesopotamia*, we find the original observation that the high- and low-magnesia glasses, previously categorized by Sayre and Smith, represented the use of plant ash as a flux in the former and natron in the latter.<sup>5</sup> His contribution to Gladys Weinberg's volume on the glass factory at Jalame in Palestine underpins our understanding of natron-glass production.<sup>6</sup> His influence can be recognized in the video *The Glassmakers of Herat*, which remains essential watching for anyone who wishes to understand the relationship between chemistry, raw materials, and craft. With colleagues at Corning Glass Works, and then Corning Incorporated, he undertook experimental investigations of the physical properties of ancient glass, their relationship to chemical composition, and glassmaking practices.<sup>7</sup> He promoted the investigation of the composition and technology of ancient Chinese glass<sup>8</sup> and early glass from India,<sup>9</sup> while also conducting keynote work on iconic artefacts, such as the Beth Shearim



Dr. Robert H. Brill examining the Beth Shearim slab, 1964 or 1965. (Photo: courtesy Elizabeth R. Brill)

slab,<sup>10</sup> the Lycurgus Cup,<sup>11</sup> and the Kenchreai opus sectile panels.<sup>12</sup>

One of Dr. Brill's great contributions to the field is the monumental three volume *Chemical Analyses of Early Glasses*, which presents all of his analytical data in a single catalogue.<sup>13</sup> The work has been cited over 500 times and the analyses continue to feature in topical debates, such as recent discussions on "high-boron" glass from Anatolia, a type he first published in 1968.<sup>14</sup> His care about

4. Brill, "Chemical-Analytical Round-Robin on Four Synthetic Ancient Glasses," 1972.

5. Brill, "The Chemical Interpretation of the Texts," 1970.

6. Brill, "Scientific Investigations of the Jalame Glass and Related Finds," 1988.

7. Schreurs and Brill, "Iron and Sulfur Related Colors in Ancient Glasses," 1984; Brill and Wosinski, "Physical Properties of Early Chinese Glasses," 1991.

8. Brill and Martin, *Scientific Research in Early Chinese Glass*, 1991; Brill, "Glass and Glassmaking in Ancient China, and Some Other Things from Other Places," 1993.

9. Brill, "Chemical Analyses of Some Early Indian Glasses," 1987.

10. Brill, "A Great Glass Slab from Ancient Galilee," 1967; Brill and Wosinski, "A Huge Slab of Glass in the Ancient Necropolis of Beth She'arim," 1965.

11. Brill, "The Chemistry of the Lycurgus Cup," 1965.

12. Brill, "Scientific Studies of the Panel Materials," 1976.

13. Brill, *Chemical Analyses of Early Glasses*, 1999–2012.

14. Brill, "The Scientific Investigation of Ancient Glasses," 1969.

the field; his generosity with his data, samples, and advice; and the insights provided in his many important contributions will ensure that his influence will remain for years to come.

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1971

*Science and Archaeology* (editor). Symposium on Archeological Chemistry 4. Cambridge, MA: MIT Press.

1974

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1999

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2012

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##### *Abbreviations*

JGS *Journal of Glass Studies*

1961

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“A Note on the Scientists’ Definition of Glass.” *JGS* 4: 127–138.

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